DOCUMFNT RESUME

ED 385 886 CS 509 017

AUTHOR Richter, Christopher; And Others
TITLE Distance Education as Communication Process: Transmission vs. Dialogue in Higher Education.
PUB DATE May 95
NOTE 26p.; Paper presented at the Annual Meeting of the International Communication Association (45th, Albuquerque, NM, May 25-29, 1995).
PUB TYPE Speeches/Conference Papers (150) -- Information Analyses (070) -- Viewpoints (Opinion/Position Papers, Essays, etc.) (120)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Communication (Thought Transfer); *Distance Education; Educational Principles; *Higher Education; Literature Reviews; Nontraditional Education; Research Needs
IDENTIFIERS *Communication Context; *Educational Issues

ABSTRACT

This paper presents a communication perspective on the areas of definition, philosophy, pedagogy, and evaluation in distance education. Much of the debate in these areas centers around concern with autonomy and control, the purpose of education, and especially transmissional vs. dialogical conceptualizations of the educational process. These issues are not unique to distance education. Rather, they form the basis of debate in modern western society for educational and social philosophy generally. Based on a critical review of the research literature, the paper concludes that distance education is most productively conceived of in terms of a further development of and complement to traditional educational approaches, rather than in terms of a radical break. Finally, the paper notes that the philosophical debates are concerned with what are fundamentally communication theory issues. Thus the paper suggests that distance education offers a fruitful area of research not only in communication technology, but also in communication theory, and one in which scholars may make useful contributions. Contains 5 notes and 32 references. (Author/RS)

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ED 385 886

Distance Education as Communication Process: Transmission vs. Dialogue in Higher Education

by

Chirstopher Richter, Leigh Maxwell & Thomas McCain
The Ohio State University

Paper Prepared for the 45th Annual Conference of the International Communication Association
Instructional and Developmental Communication Division

Richter and Maxwell are Doctoral students in the Department of Communication; McCain is full Professor, and director of the Center for Advanced Studies in Telecommunications. They can be contacted at the following addresses, telephone numbers and e-mail addresses:

Christopher Richter
Department of Communication
The Ohio State University
3016 North Oval Mall
Columbus, Ohio 43210-1339
Tele: (614) 261-1939
richter.3@osu.edu

Leigh Maxwell
Department of Communication
The Ohio State University
3016 North Oval Mall
Columbus, Ohio 43210-1339
Tele:(614) 292-5988
maxwell.58@osu.edu

Dr. Thomas McCain
Department of Communication
The Ohio State University
3016 North Oval Mall
Columbus, Ohio 43210-1339
Tele: (614) 292-3095
mccain.2@osu.edu

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Abstract

"Distance Education as Communication Process:
Transmission vs. Dialogue in Higher Education"

In this paper we present a communication perspective on issues of definition, philosophy, pedagogy and evaluation in distance education. Much of the debate in these areas centers around concern with autonomy and control, the purpose of education, and , especially, transmissional vs. dialogical conceptualizations of the educational process. These issues are not unique to distance education. Rather, they form the basis of debate in modern western society for educational and social philosophy generally. We conclude that distance education is most productively conceived of in terms of a further development of and compliment to traditional educational approaches, rather than in terms of a radical break. Finally, we note that the philosophical debates are concerned with what are fundamentally communication theory issues. Thus we suggest that distance education offers a fruitful area of research not only in communication technology, but also in communication theory, and one in which scholars may make useful contributions.

Distance Education as Communication Process: Transmission vs. Dialogue in Higher Education

Distance education has become one of the most popular means for adults to expand their educational options in countries all over the world. In sharp contrast, the notion of distance education is still relatively unknown or at least uncertain in much of the United States. Many attribute this to the accessibility of more traditional modes of educational delivery for adults from community colleges, to adult learning centers, to industry training, to colleges and universities. However, as corporations continue to restructure, and knowledge and skills become outdated, more and more adults are looking to continue their education in less-conventional ways. While traditional institutions provide some options for these learners, many adult students require flexibility with regard to time and place, as they must also balance work and family responsibilities. Thus, distance education quickly is becoming an attractive option for both institutions and the adult students in the U.S.

The primary intent in this paper is to contribute to an understanding of the current important issues for distance education from a communication perspective. Toward this end, we present a critical review of the research literature addressing philosophical, theoretical, and pedagogical issues.

We begin with a review of how distance education and open education are generally conceptualized. In order to better understand the issues and problems of definition, we also consider the historical contexts of distance and open education. This leads us to address important pedagogical and philosophical debates in distance education. We note that fundamentally these debates are tied to communication theory relevant conceptualizations education in terms of dialogue versus transmission. We claim that these issues are not unique to distance education, but rather are tied to fundamental concerns in educational theory and social philosophy generally.

Finally we note the relevance of these and other issues for evaluation of distance education programs. We conclude that distance education need not be viewed as a radical break with traditional educational approaches, but as a compliment and further development. We further suggest, given the relevance of the philosophic debates, that distance education offers a promising area of research not only for scholars in communication

technology and policy, but for those interested in communication theory as well.

Definitions and History

Fundamental to the notion of distance education is an understanding of knowledge, pedagogy, and learning. Our review of the distance education literature found a great deal of thoughtful work by scholars and practitioners seeking to understand the variations in use of technology and variations in goals for higher education. It is useful, we think, to show how communication theory is helpful for differentiating the various orientations to distance education suggested by this literature. We use the terms **transmissional** and **dialogical** to represent the two competing futures for distance education as they reflect different assumptions about communication theory and practise. Ultimately, the communication assumptions become prescriptive as to how a distance education program is designed.

Debate about what distance education is as practice is related to debate about what researchers think distance education is or should be as a discipline or field of study. Thus Shale (1990) states that "distance education is beset with a remarkable paradox: it has asserted its existence, but it cannot define itself" (p. 333). Gibson (1993) highlights the nature of the link between disciplinary and practical issues. Primarily concerned with approaches to research on distance education, she nevertheless notes that "how we conceptualize the distance teaching/learning transaction will influence, for example, instructional design, implementation of distance education programmes and the evolution of programme and learner success" (p. 80).

Defining what should be thought of (and studied) *as* distance education, then, is not merely descriptive and explanatory. It is, with varying degrees of explicitness, prescriptive. Differences between definitions can be understood as revolving around both the degree of prescription, and what is prescribed. Although an exhaustive review of definitions is not attempted here, the fundamental issues are illustrated through the examples presented.

The term and concepts of 'open learning' have been closely linked to those of distance education in the literature, and are integral to understanding these theoretical and practical issues (e.g. Holmberg, 1989, p. 2; Keegan, 1986, p.17-29; Evans and Nation 1993; Hodgson 1993; Rowntree 1992). The meaning of the term 'open learning' is, if anything, more contested than that of distance education. What is important to understand is that defining distance education is not merely descriptive and explanatory. It is, with varying degrees of explicitness, a vehicle for

prescribing what constitutes "good practice". Differences between definitions can be understood as revolving around both the degree of prescription, and what is prescribed.

Defining Distance Education. Keegan (1986), after reviewing and critiquing a number of earlier definitions, identifies "five interdependent elements" of distance education:

- the quasi-permanent separation of teacher and learner throughout the length of the learning process; this distinguishes it from conventional face to face education.
- the influence of an educational organization both in the planning and preparation of learning materials and in the provision of student support services; this distinguishes it from private study and teach-yourself programmes.
- the use of technical media; print, audio, video or computer, to unite teacher and learner and carry the content of the course.
- the provision of two-way communication so that the student may benefit from or even initiate dialogue; this distinguishes it from other uses of technology in education.
- the quasi-permanent absence of the learning group throughout the length of the learning process so that people are usually taught as individuals and not in groups, with the possibility of occasional meetings for both didactic and socialization purposes. (p. 49)

Holmberg (1989) generally agrees with this orientation:

> the term distance education [as he uses it, and as it is used] fairly generally in educational literature, covers the various forms of study at all levels which are not under the continuous, immediate supervision of tutors present with their students in lecture rooms or on the same premises but which, nevertheless, benefit from the planning, guidance and teaching of a supporting organization. (p. 2)

One way in which these two definitions differ is that Holmberg simply leaves implicit some aspects which Keegan makes explicit, e.g. the use of media and two-way communication, and details on the role of the supporting institution. However, Keegan's definition is, in comparison, mildly prescriptive in specifying a course content and that learners are "usually" not taught "in groups". And it is more explicitly prescriptive in the insistence that the two-way communication involve

dialogue (rather than, e.g. simply the presentation of lectures/lessons one way, and of work to be evaluated the other).

Verduin and Clark (1991) amend Keegan's list. They recognize "four defining elements":

1. The separation of teacher and learner during at least a majority of the instruction process
2. The influence of an educational organization, including the provision of student evaluation
3. The use of educational media to unite teacher and learner and carry course content
4. The provision of two-way communication between teacher, tutor, or educational agency and learner. (p. 11)

What is missing here is the prescription for dialogue. They have also broadened the conception of participants in the communication to include "educational agency", which suggests a different kind of interaction than dialogue between student and teacher.

Holmberg, Keegan and Verduin and Clark all prescribe that an organization plays some role in distance education. Yet Hodgson (1993) diminishes this role when she states that "all learners who use self-instructional materials are, to some extent, distance learners" (p. 40). And Holmberg (1989) notes that at least one scholar, "Nilsen. . . refuses to accept the necessity of a supporting (teaching and counselling) organization (Nilsen1986:11)" (p. 3).

Rowntree (1992) agrees in principle that "distance learning is learning while at a distance from one's teacher. . . .the learners are separated from their teachers in time and space but are still being guided by them" (p.29). But he problematizes the concept of distance when it comes to specific applications. "A learner's learning may be more or less distant, and in a variety of ways. . . .there is often some element of distance even in a classroom-based, on-site course" (1992, p. 30).

The tensions among these different descriptions and prescriptions reflect current philosophical debates in distance education. Specifically, these revolve around the role and nature of dialogue or interaction in distance learning; related concerns about the role of a supporting institution; and as noted, the boundaries between distance education and education generally, both as practice and discipline. These disputes are analyzed in more detail in the next section. In the meantime, it is possible to get a further sense of what distance education has generally meant by looking at the historical development of its practice.

The Heritage of Distance Education. The term distance education has only "gradually been adopted" in the English speaking and other parts of the world "since the early 1970s" (Holmberg, 1989, p. 1). Prior to this adoption, "correspondence education" (Holmberg, 1989, p. 1) was the most generally accepted term. But it came to be viewed as inaccurate as "media other than the written word became common" (Holmberg, 1989, p.1) in practice . Thus, while the term distance education is of relatively recent derivation, the tradition of correspondence education can be traced back in Europe and North America at least to the early nineteenth century (Holmberg, 1989, p. 1).[1] In the US, college sponsored correspondence study is "generally dated from the opening of the University of Chicago in 1892" (Pittman 1990, 67; see also Watkins and Wright 1991).

The approach, under either title, has most commonly and successfully been geared toward adult learners (Holmberg, 1989, p. 26). It has generally been based on packaged, pre-produced course materials (Holmberg, 1989, p. 4; Rowntree, 1993, p.29; Hodgson, 1993, pp. 40-42). And as Evans and Nation (1993) generalize:

> in most countries it has emerged to provide education at all levels for people who were removed in space and/or time from the major sites of education in towns or cities. The education provided was typically external or extension studies modifications of the existing curriculum offered by institutions to their on-campus students. These external or extension students were often teachers in rural areas, military personnel posted overseas and children in isolated communities. . . . no matter how successful these programmes were in their own terms, they were usually considered as *marginal forms of education. . . . for marginal students* [italics added] (p.8).

Is the evaluation of the marginal status of distance education changing? If so, the change is most likely related to perceived political, economic and social changes, as well as changes in means of distribution. And the significance of these changes for distance education appears to be articulated primarily through the recent emergence internationally of "open education institutions" (Evans and Nation, 1993, p. 8).

Unpacking Open Learning. Defining the term 'open learning' is perhaps more problematic than defining distance education. There appear to be two basic, related issues in debates about the term's meaning: 1) to what extent is open learning

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[1] Sewart (cynically?) suggests that some even trace the tradition to "the use of written material for educational purposes almost back to the beginning of written records" (1983, 46).

synonymous with distance education? 2) To what degree can open learning be defined in terms of a specific philosophy and set of practices?

The two terms are associated because many approaches labeled as open-learning have been built on distance education practices. Holmberg notes that some scholars tend to distinguish 'distance education' in terms of "a mode of delivery", as compared to 'open education' as concerned with a philosophical approach with implications for design and administration (Holmberg 1989, 2). However the term, retains a certain ambiguity or vagueness(Holmberg 1989, 3) because it has in fact served as "a rallying cry--a slogan [for] a variety of different beliefs" (Rowntree 1992, 13). Nevertheless, as Rowntree (1992) notes:

> the most widely held beliefs are about opening up learning opportunities to a wider range of people and enabling them to learn more congenially and productively. This involves reducing barriers to access and giving learners more control over their own learning. (p.13)

He goes on to identify dimensions or continua along which openness can be measured

> WHO? How easy is it for someone to become a learner without restrictions of age, qualifications, wealth, job, etc.?. . . .
>
> WHAT? To what extent is the learner free to decide the content and the objectives of the program and when and how he or she will be assessed?
>
> HOW? To what extent is the learner free to decide where, when, and at what pace he or she will learn. . .and how he or she will call on other people for support? (Rowntree, 1993, p. 20)

The term has been applied to programs ranging from open universities to in-company training programs. In the former, the quality of openness is associated primarily with access or admission policies and students' choice of courses. In the latter openness is likely to be associated with flexibility only "in the aspects of 'time, place and pace' promoted by open tech" (Rowntree,1992, p. 21-23).

As with distance education, Evans and Nation (1993) nicely explain the contested nature of the term open learning through considering its historical development. Regarding philosophy and practice, they note that what has been called open education has arisen in varied political and economic contexts: "open education has emerged internationally and historically under various promotional catch phrases: equal opportunity, industrial and economic restructuring, efficiency and effectiveness, work-based training,

independent learning and experiential learning" (Evans and Nation, 1993, p. 8).

Thus, the term is generally associated with "reformed educational practices for. . .varied economic, political and social purposes" (Evans and Nation, 1993, 8). For example:

> the 'open learning' push. . . in the UK was partly a reaction to the entrenched educational practices and values of all educational institutions dealing with adults [which] were not sufficiently congruent with the Conservative government's push for economic (and social and political) restructuring. (Evans and Nation, 1993, 9)

They also see the United Kingdom Open University (UKOU), with its open enrollment policies and emphasis on students who could not regularly attend on campus, "as an important landmark in (or even catalyst for) the interrelated development [of open and distance education]" (p. 8). Thus,

> a separation of distance and open education cannot be sustained beyond the domain of theoretical argument. Arguably, distance education is characterized by the use of educational technologies which assist teachers to span the distances between themselves and their students ; and open learning is characterized by teachers' frames of mind, which lead them to teach courses in ways which reflect the needs, circumstances and interests of their students. (Evans and Nation, 1993, p.8)

As with the term distance education, the debates over defining open learning are associated with philosophical and pedagogical differences. The central issue is student autonomy and control. This issue along with that noted above are examined in detail in the next section.

Pedagogies & Philosophies

Much of the disagreement concerning definition in distance education reflects different underlying assumptions about the nature of teaching and learning. Two basic sets of issues, with both pedagogical and philosophical implications, are at the heart of these differences. These sets are so closely related that to understand either fully requires some understanding of the other. The first set fundamentally involves communication. It concerns the role of dialogue versus that of transmission of knowledge in learning. The second set of issues concerns the interplay of autonomy and control -- in short the dynamics of power, between student and teacher -- in distance education.

All of these concerns are also relevant to the issue of delineating distance education as a distinct field of study or discipline. They are among the fundamental pedagogical and philosophical concerns in modern education generally. Indeed, ultimately they can be situated in terms of the basic philosophical and theoretical disputes addressing the nature of the individual and society in the modern era. Much of the debate of these issues in distance education has taken the form of critique of what are perceived as the dominant trends in theory and practice. Therefore, it will be easiest to proceed by first presenting an overview of these trends and their perceived advantages. This will be followed by examples of the various critiques.

Approaches Based on Transmission. The dominant trends, as developed and practiced, for example, in the UKOU programs, have been characterized in terms of a "large-scale" (Holmberg, 1989, p. 5), "mass communication" (Holmberg, 1989, p. 27) or "instructional industrialism" (Evans and Nation, 1989, p.11) approach. Otto Peters (e.g. 1983), who speaks in terms of "industrial production" has explicated at length what this approach entails. Implicitly, he treats the approach as identical to distance education generally, as if it is the form which distance education has inevitably taken as new technologies enabled changes. Likewise, he asserts that the traditional or "pre-industrial forms of study" (O. Peters, 1983, 95), to which he contrasts distance education, are more or less directly descended from medieval practices, and don't exhibit any of the industrial production aspects he enumerates . According to O. Peters (1983), the approach employs techniques which are similar, if not identical to, those of industrial mass production--e.g. rationalization, division of labor, mechanization, assembly lines, standardization, objectification, concentration and centralization, etc. Such systems achieve economies of scale and make a uniform, high quality educational product available to a greater number of people (O. Peters, 1983, p. 99).[2]

Implicit in Peters' treatment is the concept that the purpose of teaching is "conveying information. . . . transmitting information" (O. Peters 1983, p. 100), or

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[2] Actually, Peters expresses ambivalence in two senses. First, he insists that he is merely exploring "an analogy" (O. Peters, 1983, p. 106), or making "a comparison" between distance education and industrial processes which is "purely heuristic" (O.Peters, 1983, p. 96). Yet he argues that there is a one-to-one correspondence between the processes, and uses language suggesting a literal identity. Likewise, he warns at the end of his article that "it was not a purpose [of the study] to pass judgements [on this system]. Presumably, the striking [administrative] advantages . . . are also connected with important educational disadvantages" (O. Peters, 1983, p. 111). Yet his tone throughout the article can be described as promotional.

"giving information" (O. Peters 1983, p. 99). Successful transfer of knowledge is then objectively tested through "the use of multiple choice questions" (O. Peters, 1983, p.106). The student is presented as a "consumer of academic education" (O. Peters, 1983, p.102).

This approach as O. Peters presents it is more efficient economically than traditional education, because it offers per student cost advantages. It is consistent with open learning ideals in that it allows access to students who might otherwise be unable to participate. Another advantage associated with this approach, and with open and distance learning generally, is greater student autonomy (see, e.g., Holmberg, 1989, p.154-60). From this perspective, students in open and distance learning are generally perceived as being empowered because they exert control at least over when to study and what to study, and perhaps even over how to approach the topic, the pace of study, when to do assignments and when to take exams. There is real alteration in the control over the temporal dimension of the relationship between student and teacher.

Otto Peters suggests that the student is further empowered in the industrial production or mass communication approach to distance education because the pronounced division of labor in the preparation, presentation and evaluation of course materials and student work frees students from the subjectivity of the individual lecturer. "The function of the provider of knowledge [is no longer] combined . . . with that of a holder of very great authority" (Otto Peters, 1983, 109). Students are freed from the traditional "relationship between student and lecturer . . .similar to that between that of subordinate and superior" (Otto Peters, 1983, 109).

Gillard (1993), coming from a very different political perspective, reaches similar conclusions . He presents an Althusserian view of traditional education in which "students are reproduced as citizens through the agency of this most powerful but most latent of ideological state apparatuses" (Gillard, 1993, 182). In distance education, however, he argues that "institutional control over the construction of the learner is considerably weaker, and learners are given the opportunity to produce themselves" (Gillard,1993, 182).

Critiques of Transmission Based Approaches. The critiques of these dominant practices and theories tend to focus on two aspects of distance education relationships: 1) the implied nature of the learning process; 2) the nature of student empowerment, autonomy and control. First, critics note that these dominant approaches have tended to assume that teaching and learning simply represent a transmission of knowledge. Approaches based on transmission models are

problematized both in terms of their effectiveness, and in terms of episitemological concerns. Holmberg addresses the issue of learning effectiveness in detail. He notes research which suggests that distinctions can be made between "deep-learning and surface learning-habits. . . . Surface learning basically endangers the educational outcomes. . . it leads to priority being given to external characteristics of the text" (Holmberg, 1989, p. 12). He relates these learning habit differences "to . . . the dichotomy between problem-solving approaches and presentations of intellectual knowledge as ready made (already discovered and described) systems" (Holmberg, 1989, p. 12). The latter approach corresponds with viewing "teaching . . . as knowledge transfer 'from one vessel to another' (Fox 1983: 151)" (Holmberg, 1989, p.8), as opposed to views of education which focus "'more attention on the intellectual and emotional development of the learner'" (Holmberg, 1989, p.8). He notes as problematic that in distance education the "'ready-made systems' presentation dominates" (Holmberg, 1989, 12-13).

A number of other scholars problematize the industrial production approach to distance education in pedagogical and epistemological terms. Sewart (1983), Shale (1993) and Evans and Nation (1989, 1992) specifically point to the lack of dialogue and interaction. Sewart, a UKOU staff member, notes that because the production of the teaching packages requires the greatest amount of time and material resources, "it often dominates the system. . . to the exclusion of all other activities " (1983, p. 48). This "excessive concentration" (Sewart, 1983, p. 48) can lead to an institution-based, rather than student based approach to distance education.

In such an atmosphere, students' needs for types of support not provided by the package may be ignored. Sewart focuses particularly on the kind of support students in a classroom situation receive from each other:

> the group learning situation is . . .supportive of the learning process not only because of the potential interaction between students in relation to the academic content of the course. . . but also because the group learning offers a bench mark to the individual members of the group. (Sewart, 1983, 51)

In contrast,

> the student learning alone and at a distance lacks the supportive atmosphere of the tutorial class. He (sic) has no-one against whom he can measure himself in the development of his learning. . . . He can of course expect to receive comments . . .from his tutor, but this interaction is strictly between teacher and student. (Sewart, 1983, p. 47)

Shale, comparing distance education processes to more or less dialogue based teaching situations likewise notes benefits of student group interaction which can be lost. However, his concern is more epistemological. In conventional teaching/learning processes, these interactions provide "an additional opportunity for each person to validate knowledge that is gained through the educational experience" (Shale, 1990, p. 336). His primary criticism concerns limits on student-teacher interaction, and the loss of

> negotiation of meaning. . . . a very real exchange of understanding, with the teacher assisting the student in acquiring insights. . .the student validating his or her knowledge by responding to the interpretations of the teacher, and often with the result that the student in turn leads the teacher to view matters in a new way. (Shale, 1990, 335)

Evans and Nation critique the lack of dialogue in industrial or mass communication approaches from a similar perspective. They note that "the way we use text in distance teaching closes students' discourse. The forms of text and pedagogical approaches used in distance teaching are monologic; dialogue is seen as impossible because of distance" (Evans and Nation, 1989, p. 248).

It is in the context of this concern about dialogue that Evans and Nation also arrive at a very important insight about the interactions of autonomy and control in distance learning relationships. The prerequisite of the students' autonomy, their aloneness has been problematized, e.g. by Sewart, above. But Evans and Nations address another aspect of the autonomy: it is, so to speak, two dimensional. That is, just as students have greater autonomy from their teachers in distance education situations, so the teachers also have a higher degree of autonomy from their students. And

> distance teachers use *their* [italics added] temporal and spatial autonomy from the students to select and shape knowledge which the students must learn for success. Through their use of 'industrial' teaching practices, distance teachers regulate the forms of discourse in which the students can engage. (Evans and Nation, 1989, p. 246).

In other words, distance can <u>amplify</u> the teachers' control over their students when non-dialogical approaches emphasize a transfer of knowledge, and limit or prevent the negotiation of relationships and meaning.

Although all these scholars offer criticisms, all also acknowledge the benefits that distance education has provided, especially that of making educational opportunities available to those who might not have had them otherwise. They also

all suggest ways of addressing the problems they have called attention to. Holmberg argues that the weaknesses are not necessarily due *per se* to the use of the "mass communication [or] industrial form of teaching and learning. . . .the implied technological approaches do not prevent personal communication of a conversational character from being a basic characteristic of effective distance study" (Holmberg,1989, p. 27, see also Holmberg 1983).

Shale tentatively suggests that technologies which offer opportunities for two-way real-time interaction offer some potential. He also feels that distance educators must remain aware of the problems, and continue to simply "offer the best we can do" (Shale, 1990, p. 341). Evans and Nation in 1989 suggested that use of "open texts", in the way that term is used in critical and cultural studies, might offer students greater opportunity for engagement (p. 248).[3] In 1993 they note various possible reforms that have been advocated in the literature, including computer-based media, and "mixed mode" approaches which combine distance education with resident programs (Evans and Nation, 1993, p. 210-12).

Distance Education in Contemporary Context.

It should be noted here that concern with the nature of knowledge and learning, and of power and control in education, are not issues unique to distance education. These are precisely the major themes in the philosophy of education generally. They are also directly related to the themes of the nature of the individual and society which preoccupy modern philosophy and social theory.

Spring (1994) sees authority and freedom as two of the three major concerns of educational philosophy historically. Dupuis (1985) sees the question "How Are Freedom and Discipline to be Harmonized?" as central for each of the approaches he reviews in his history of western education (eg. p 48-49; 90-91; 111-114;152-156;177-178; 196-197;218-222;239-40; 272;279).

Issues of authority/control versus freedom/equality in education are clearly linked to the epistemological issues of transmission versus dialogue in the works of the influential Brazilian educator Paulo Freire. Freire developed his methodology of *Conscientização* (concientization) through teaching adult literacy. He distinguishes between a transmission based "banking" conception of education and conceptions such as his approach, based in dialogue (Freire, 1989, p. 57-74). In the banking conceptualization the teacher, as expert and authority, deposits knowledge in the student's mind. In the dialogic approach student and teacher engage as equals. The

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[3] Of course this approach may be open to some of the same criticisms as Holmberg's.

teacher attempts to situate what is to be taught in terms of the student's life, and student and teacher come to mutual understanding, or create knowledge (Freire, 1989, p. 57-58 and passim).

Freire's approach is based not only on assumptions about effective learning, but also on valuation of humans as individuals. The purpose of *conscientização* is to empower people not just through literacy, but through development of their ability to critically question and reflect on the social world, and to intervene in it (Freire, 1989, pp. 66-67, 77, 100-101).

> Schaull (1989), in his preface to Freire's Pedagogy of the Oppressed argues that there is no such thing as a *neutral* educational process. Education either functions as an instrument to facilitate integration. . . and bring about conformity, *or* it becomes the "practice of freedom," the means by which men and women deal critically and creatively with reality and discover how to participate in the transformation of their world. (p.15)

An additional, more recent conceptualization of the function of education can also be stated which is related to, yet distinct from Schaull's integration. In this view, prevalent at least in the U.S. in discussions of educational reform, the purpose "is to replenish the workforce, to create good corporate citizens who earn. . . money and pay . . . taxes, and. . . maintain. . .domination in the world economy" (Maxwell, 1994, p. 20).

Debate about the purpose of education can be linked to modernist western philosophical debates about the nature of individuals and society. At one extreme, are conceptualizations of a "bourgeois public sphere", the historical developments of which has been traced by Habermas (1989, 1991, 1992).[4] In this ideal, educated, rational citizens are viewed as arriving at consensus on all public issues through dialogue. Universal education presumably is a prerequisite for such a condition, as endorsed e.g. by Thomas Jefferson "for the realization of an effective political democracy" (Power, 1991, p. 251).

This outlook on the relationship between individuals and society is in stark contrast to that presented by Foucault in his analyses of disciplinary power (1979, 1980). He sees this power as "a fundamental instrument in the constitution of industrial capitalism, and of the type of society that is its accompaniment" (Foucault, 1980, p. 105). Such power is invested in the divisions of time and space which

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[4] Habermas has been critiqued for his attempts to justify this concept, and to prescribe appropriate strategies for pursuing the ideal. Nevertheless, his historical treatment of it the concept as an ideal is largely uncontested.

characterize the industrial age. Its focus is the production through discipline of individual "docile bodies. . . .that may be subjected, used, transformed and improved" (Foucault, 1979, pp. 135-136). Schools, along with the military, factories, prisons, and other institutions, were among the earliest sites for development and exercise of these instruments.[5] As Giddens (1984) notes, "Foucault's 'bodies' are not agents" (p. 154). They are acted upon, but don't act. The individuation serves rather as focus for power, a way of controlling.[6]

Evaluation of Distance Education

What constitutes successful distance education is determined by the criteria one uses to evaluate it. That there are differences in assessment of quality in distance education should come as no surprise. These differences are tied to a host of methodological and pedagogical issues, many of which are embedded in the transmission vs. dialogic conceptions of education. But they are also traceable to the fact that the concepts of efficiency, and especially, effectiveness in education, are themselves open to interpretation. In this section, an overview of these basic issues and perspectives on evaluation of distance education and open learning is presented.

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[5] Foucault is not the only scholar who sees early links between modern education and industrial processes, Otto Peters assertions about the uniqueness of distance education not withstanding. Beare and Slaughter (1993) e.g. equate mass compulsory schooling generally with industrial processes: "in fact, the big school was designed and organized like a factory" (p. 35).

[6] John Peters (1993) has observed that Habermas and Foucault look at the same trends historically, but draw different lessons from them. Thus Habermas' view of enlightenment ideals finding expression in the waning of representative publicity corresponds to Foucault's of the decline of the spectacle, but where Habermas (1989; 1991; 1992) sees the growth of a bourgeois public's self determination, Foucault (1979) presents the evolution of a technology of power and control. We would suggest that these two views need not be interpreted as opposing one another, but rather, that a theoretical framework of modernity should account for the Habermasian and the Foucauldian world views as presenting enabling and constraining characteristics of the same heritage. In this light, trends in distance education can be analyzed in different ways. For example, rather than representing a distinct break with previous practices, they are rather a further development in a particular direction. On the one hand, they seem to pose problems for Habermasian/Freireian dialogue. On the other hand, they do represent a shift in (but not abandonment of) Foucault's "exact geometry" of control (Foucault, 1979, pp. 173-174). The spatial relations which characterized the class-room as technology of control are not in effect. This shift does not inherently offer more empowerment for students. But it can be seen as offering an opportunity to re-negotiate the tension between empowerment and control.

Evaluation implies judging achievement against a standard of success or goal. Thorpe's definition is a useful one:

> evaluation is the collection, analysis and interpretation of information about any aspect of a programme of education and training, as part of a recognized process of judging its effectiveness, its efficiency, and any other outcomes it may have (1985 p. 5).

It should be remembered though, that for evaluation in distance education and open learning at least two different agendas appear to operate: 1) there is likely to be an *ideal* based on a certain interpretation of what efficiency or effectiveness in education means generally; and 2) inevitably, there is also always an element of comparison to traditional or conventional classroom based approaches .

Evaluation Efficiencies and Economics. Efficiency in distance education discussions is nearly always meant in the economic sense. Keegan (1986) presents an overview of trends in economic evaluation studies since the early 1970s (pp. 215-241). As far as finances generally, early analyses demonstrated that the development of the so called industrialized production approach at the Open University UK resulted in higher capitalization, or fixed costs, and lower variable costs, which vary with enrollment, as compared to conventional universities. Thus, with high enrollments, the OU achieved economies of scale, making total costs per graduate as much as 50% lower; while for low enrollments, conventional universities tended to have lower overall costs per student.

A conclusion drawn was that at the higher enrollments the OU was more efficient than the conventional universities, but this was shown to be problematic, because it assumed that the benefits or value of the education received at the OU and conventional schools were equivalent. In fact, other analyses suggest that they probably are not--that OU graduates, e.g. do not receive equivalent advancement or salaries--but that determining this with certainty is impossible because OU students tend to be older and in different career situations than students at conventional universities. Further, it was suggested that because the OU is a relatively unique institution among distance education schools, generalizing may be problematic (Keegan, 1986, pp. 216-223).

Later studies confirmed that the findings about fixed versus variable costs, economies of scale and per student costs for distance compared to conventional education can be generalized to most distance education (Keegan, 1986, p. 225, p. 234). However, there are also significant differences in costs between different approaches to distance education. For example "transmission and duplication costs

are very high for video systems" compared to print media (Keegan, 1986, p. 230), "the use of face to face tutorials tends to undermine the cost advantage of distance education" (Keegan, 1986, p. 230), the greater the number of courses which are developed, the lower the economies of scale, etc. (Keegan, 1986, p. 231, p. 234). Such differences lead Holmberg to state that "sweeping statements about the economics of distance education are hardly possible" (1989, p. 190). Keegan's perspective is that comparing costs and benefits of different approaches can aid in planning (Keegan, 1986, p. 231).

Evaluation and Effectiveness. The analyses concerned with efficiency have tended, not surprisingly, to focus on quality of education in economic terms, e.g. earning potential of graduates, or economic value to society of a better educated work force. Evaluation which can be labelled as assessing effectiveness, on the other hand, is that which focuses more directly on teaching, learning, and other comparatively immediate goals and processes. Evaluations of effectiveness employ a variety of foci, some of which reflect the conflicting philosophical and theoretical stands on learning addressed above.

Generally, the subject of analysis in this type of evaluation is either the student, the course, or the program. What is called student evaluation really has two aspects. The term is sometimes used to refer simply to the grading of students' work and assessment of their progress. This process is also referred to, especially in the UK, as "assessment" (Hodgson, 1993, p. 47). As Holmberg notes, student evaluation or assessment "is needed. . .to give students feedback" and provide certification of their work (1989, p. 172). In this sense of an individual measurement or judgement of each student, student evaluation is internal to a course and/or program, and represents different intentions than the other types of evaluation dealt with here.

However, *aggregate* measures of student progress or performance can play an important role in evaluating effectiveness of courses and programs. Student achievement, or mastery of a subject, for example, can be measured through use of pre- and post tests, and compared to the objectives or goals for which a course was developed (Elliot, 1990, pp. 42-43, Holmberg, 1989, p.174, Rowntree 1992, pp. 217-218). Holmberg notes that such an "approach relies to a great extent on the definition of so called behavioural objectives, i.e. study objectives which express what the student is expected to be able to do after he has completed a course or course unit" (1989, p.174). If students generally are not achieving the objectives, it is assumed either that some aspect of the course, such as teaching materials or tutoring must be modified, that

entry requirements should be addressed, or that the course objectives themselves are unrealistic (Elliot ,1990, p.43, Holmberg, 1989, p. 174).

Another aggregate measure of student performance frequently used in evaluation is drop-out rate, also referred to as "wastage, withdrawal, attrition, etc." (Sewart, 1983 pp. 52-53). Drop-out, or conversely, completion rates have been taken respectively as measures of the degree of failure or success of distance courses or programs (Holmberg, 1989, p.182). Both the student assessment and the drop-out/completion rate approaches provide quantitative measures, allowing easy comparison between distance and conventional education as well as between different approaches to distance education. This is apparently one reason they appeal to evaluators (Hodgson, 1993, p. 47, Holmberg, 1989, p. 175, p. 182). However, each has been been widely criticized.

Student mastery assessment is a traditional approach to education evaluation generally. In distance education, however, it is most closely associated with the so called "industrial " approach. It is based on some of the same assumptions about learning, and thus is subject to some of the same criticisms, i.e. that it focuses only on a transmission or banking concept of learning and thus fails to assess other important aspects such as students' perceptions of the course, or qualities of the learning process and environment. Use of drop-out rates has been criticized because the institutionalized standard of success that may bear little relationship to that of the students involved. Holmberg, e.g. notes instances where students may drop out as soon as they have mastered particular materials or learned how to solve particular problems they were interested in (1989, p. 183).

Finally, there is need for care in interpreting either of these measures. Generally, the use of the approaches has been linked to taking a "pre-determined stance" (Hodgson, 1993, 47, see also Verduin and Clark, 1993, 186), associated with a general inflexibility and unlikeliness to question objectives. And Sewart (1983) notes that while the UK Open University's comparatively low drop-out rate is normally attributed to the high quality of their instructional packages, the "counselling and tuition functions peculiar to the OU" (p. 52) may actually be more important, but are usually not been taken into account .

An approach which attempts to address some of the shortcomings noted above and still provide quantifiable results is incorporation of student attitude surveys. These generally attempt to get at students' assessments of course relevance and materials. However, critics have suggested that questionnaire surveys relying on close ended responses and Likert scales still fail to explain important aspects of the

learning process. "'Illuminative evaluation'" first proposed and named by Parlett and Hamilton "emphasizes the more qualitative aspects . . . uses observation, interviews, discussion, informal conversations, etc. to establish what the people most concerned think and feel about the course, curriculum or institution" (Hodgson,1993, p. 47). This may involve "attempts. . .to find out not only what students' learning conditions are but also what their life in general is like in relation to their studies" (Holmberg, 1989, p. 180).

Generally, these different approaches are presented theoretically as incompatible, based on conflicting quantitative versus qualitative approaches. However, it appears that in practice (and in recommending practices), distance educators recognize that the different approaches may be useful in different situations, as they assess different aspects of courses, programs and learning processes. It also appears that the choice of evaluative approaches is often dictated more by costs and the resources available than by determination that one method is superior to another epistemologically. Thus Hodgson notes that "debate about the relative merits of these. . .approaches when applied to relatively large-scale evaluations conducted by outside independent evaluators" continues (1992, pp. 47-48). However, teachers and trainers operating on a smaller, commonsense scale take notice of both "quantifiable things such as" number of registrants, drop-out rates, grade distributions, as well as "such qualitative things as . . .colleague opinions and feelings as well as . . .learners opinions and feelings" (Hodgson, 1992, 48).

Regardless of method, two general phases of evaluation are normally recognized: formative and summative. Formative evaluation refers to a sort of 'in-process' assessment. The term in general refers to evaluation during development of a course, and may be associated with sample testing in some form of learning materials (Elliot, 1990, pp. 47-48, Willis, 1993, pp. 61-62, Rowntree, 1992, p. 221, Verduin and Clark, 1991, pp.184-185). The term can also refer to assessments during implementation of a course which may suggest adjustments are needed. Summative evaluation occurs after a course has been completed.

Before closing, some other aspects of and concerns in evaluation should be noted. Thorpe, reminds us that underlying goals of open learning approaches include

> to increase rates of participation in education and training, especially among groups with low rates of participation hitherto; and second, to improve the quality and extent of learning achieved by those who do participate. (1988, p.2).

While most of our discussions have focussed on evaluations concerned with the second goal, the issue of access is also an important one for evaluators (e.g. Keegan 1986, 246-7).

Despite criticisms of this approach, some researchers continue to focus primarily or exclusively on evaluating technologies for distance learning in terms of cost and technological effectiveness, rather than as part of an over all approach to learning (Acker & McCain, 1993). Chadwick suggests that this, as well as a failure to question general goals and objectives, has characterized some research on Latin American distance education and technologies (Chadwick1986, 249).

Finally, related to the questioning of goals, Aoki (1991) implies that the concept of evaluation in education should be expanded. Discussing education evaluation in general, he includes as a distinct approach reflection informed by critical theory which questions fundamental societal assumptions about the goals and purposes of education. Using this definition, many of the pieces cited in the philosophical debates above would be considered evaluation. Whether such a classification is useful is open to question. However, it cannot be denied that such critical questioning can and should play an important role in the forming of both educational and evaluative strategies.

Conclusions

Our review and analysis suggests several conclusions. First, it is important to recognize that distance education does not stand outside of traditional educational concerns or offer radically new and improved philosophies of education. Rather the primary concerns within distance education are a reflection of those in education, as well as in our society, generally.

At a time of perceived crisis in education in this nation, an awareness of these traditions is important for those involved in developing and implementing distance education applications--whether educators, technology and service providers, or regulators. Distance education's full potential for contributing to beneficial reform will not be realized if it is understood as either total revolutionary replacement, or simply poor substitute, for traditional approaches to adult education. Conceptualizing it as as a technological miracle cure for educational ills, or cynically dismissing it as a technological 'band-aid', are equally unfruitful approaches.

Distance education technologies offer some real advantages. But they also offer real limitations, which are different from those of traditional

approaches. Thus we recommend that distance education is best conceptualized as an important component in an overall education system which compliments traditional approaches in achieving such educational goals as improved access to students, and empowerment of students to better participate in society.

Finally, we have noted that the philosophical debates in distance education are concerned with what are fundamentally communication theory issues: dialogue versus transmission. Thus we suggest that scholars not only in communication technology, but also in communication theory, will find that distance education offers a fruitful area of research, and one in which they may make useful contributions.

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